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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,798	05/14/2001	Reinhard Janssen	3926.027	9978

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EXAMINER

PATEL, SHEFALI D

ART UNIT	PAPER NUMBER
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2621

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/831,798	Applicant(s) JANSSEN ET AL.	
	Examiner Shefali D. Patel	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27 is/are allowed.
- 6) ☒ Claim(s) 24-26, 28-34 and 38-46 is/are rejected.
- 7) ☒ Claim(s) 35-37 and 47-49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/20/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment was filed on December 20, 2004.
2. Claims 1-23 are cancelled and Claims 24-49 are pending in this application.
3. The drawings of Figures 1 and 2 filed on December 20, 2004 are accepted.
4. The abstract and an amendment to the specification have been made of record.
5. 35 U.S.C. 112 2nd paragraph rejection made to claims 33 and 45 has been overcome and withdrawn.
6. After filing a Terminal Disclaimer on December 20, 2004, the double patenting rejection has been withdrawn.
7. Claim 27 is allowed.

Response to Arguments

8. Applicant's arguments filed on December 20, 2004 (Remarks on pages 17-19) have been fully considered but they are not persuasive.

Applicant argue on page 18 stating that "Piccioli does not adjust computation level based on information from a map-based navigation system or information from a traffic information system. Nowhere in Piccioli is there mention of, for example, GPS or a radio receiver for receiving broadcast traffic information."

The examiner disagrees.

Piccioli discloses traffic information system on pages 210-216. At the beginning of the section 3 the three steps are described for the system. It is conventional in the art to detect and recognize the traffic signs in order to inform the user of the vehicle of the traffic signs and such. Piccioli does this clearly in his invention.

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9. Applicant's arguments with respect to claims 26 and 40 have been considered but are moot in view of the response above.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 24-25, 28-34, 38-39, 41-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Piccioli et al. ("Robust method for read sign detection and recognition," Image Vision Computing, 25 August 1995) (hereinafter "Piccioli").

With regard to **claim 24** Piccioli discloses a process for improving performance of a system for recognizing traffic signs (See abstract), said system including a camera (page 210, col. 1, section 2. lines 1-2) and a therewith associated evaluation unit for image recognition or image display (evaluation unit for recognizing the unit and there within a traffic sign as disclosed on page 210 under section 3 and 3.1), said process comprising: utilizing information originating from at least one of (a) a map-based navigation system and (b) a traffic information system in the evaluation or display of contents of traffic signs (traffic information system as disclosed on pages 210-216 where in the beginning of the section 3 the three steps are described for the system).

With regard to **claim 25** Piccioli discloses the system for recognition and/or display of traffic signs is in communication with (the map-based navigation system or) the traffic information system via an onboard data bus (On page 210 under section 2, Piccioli discloses that the system is mounted on a vehicle which is inherently in communication with the data bus).

With regard to **claim 28** Piccioli discloses the characters, the type or the position or the condition of the visibility or the size of a recognized traffic sign is stored in a data storage unit associated with the traffic information system on page 216 second column under section 3.3 fourth paragraph where in Figure 10(e) the database related to the traffic signs are discussed.

With regard to **claim 29** Piccioli discloses emitting a signal on a display for already traveled road segment since Piccioli discloses a storage unit as discussed in claim 28 above that stores the images of the road (including a traffic signs) and it is inherent that once the road is stored in the database, the system knows that the road has been traveled on.

Claim 30 recites identical features as claim 28. Thus, arguments similar to that presented above for claim 28 is equally applicable to claim 30.

Claim 31 recites identical features as claim 29. Thus, arguments similar to that presented above for claim 29 is equally applicable to claim 31.

With regard to **claim 32** Piccioli discloses a predetermined traveled path on page 210 column 2 section 3.1.1.

With regard to **claim 33** Piccioli discloses the classification of traffic sign on page 210 column 2 section 3.1.2. step 1.

With regard to **claim 34** Piccioli discloses traveled paths are programmed into a data storage unit by first clustering and then storing in the database as discussed on page 211 column 1 step 2-3 and page 216 column 2 section 3.3 fourth paragraph in figure 10(e).

Claim 38 recites identical features as claim 24. Thus, arguments similar to that presented above for claim 24 is equally applicable to claim 38.

Claim 39 recites identical features as claim 25. Thus, arguments similar to that presented above for claim 25 is equally applicable to claim 39.

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Claim 41 recites identical features as claim 30. Thus, arguments similar to that presented above for claim 30 is equally applicable to claim 41.

Claim 42 recites identical features as claim 28. Thus, arguments similar to that presented above for claim 28 is equally applicable to claim 42.

Claim 43 recites identical features as claim 29. Thus, arguments similar to that presented above for claim 29 is equally applicable to claim 43.

Claim 44 recites identical features as claim 32. Thus, arguments similar to that presented above for claim 32 is equally applicable to claim 44.

Claim 45 recites identical features as claim 33. Thus, arguments similar to that presented above for claim 33 is equally applicable to claim 45.

Claim 46 recites identical features as claim 34. Thus, arguments similar to that presented above for claim 34 is equally applicable to claim 46.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 26 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piccioli ("Robust method for read sign detection and recognition," Image Vision Computing, 25 August 1995) in view of Escalera et al. ("Road Traffic Sign Detection and Classification", IEEE, December 1997) (hereinafter, "Escalera").

With regard to **claim 26** Piccioli discloses all of the elements recited in claim 24 as mentioned above. Piccioli does not expressly disclose the vehicle passing through an area in which recognition of

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traffic signs may be problematic by having the system for traffic sign recognition that is capable of operating at a normal performance level and enhanced performance level. Escalera discloses this on page 849 under section II first paragraph where the warning and the prohibition signs are disclosed. Piccioli and Escalera are combinable because they are from the same field of endeavor, traffic sign recognition. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Escalera with Piccioli. The motivation for doing so is to recognize the problematic signs and alert the car driver. Therefore, it would have been obvious to combine Escalera with Piccioli to obtain the invention as specified in claim 26.

Claim 40 recites identical features as claim 26. Thus, arguments similar to that presented above for claim 26 is equally applicable to claim 40.

Allowable Subject Matter

14. Claim 27 is allowed.

The reasons for allowance are disclosed in an Office Action mailed on July 15, 2004 and the reasons are not repeated herein, but are incorporated by reference.

15. Claims 35-37 and 47-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action

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is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shefali D. Patel whose telephone number is 571-272-7396. The examiner can normally be reached on M-F 8:00am - 5:00pm (First Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shefali D Patel
Examiner
Art Unit 2621

May 25, 2005


BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600